

New Media & Values Education

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*A Critical Examination of Technology in Higher Education:
Importing Real World Information into Education*

Preston K. Covey
Vice Provost for University Studies
Director, Center for Design of Educational Computing

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Contents

Some Observations & Provocations	3
Lest Questions of Evaluation Evade Judgments about Value	3
Neglected Domains: Open-Ended Inquiry in the Arts & Humanities	4
Why is Surgery Taught in <i>Theaters</i>, but Ethics Only in <i>Theory</i> ?	5
What is Multi-Media?	7
Why Multi-Media?	7
CDEC Strategy & Priorities for Multi-Media	9
Project THEORIA: New Media for Values Education	11
A Right to Die? The Case of Dax Cowart	12
Art or Forgery? The Case of Han Van Meegeren	13
Birth or Abortion? The Human Face of a Dilemma	14
Values Boggled: Ethics, Art & Money in the Work of J.S.G. Boggs	15

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A critical look at technology in higher education should reveal a number of things, among them: undue expectations, mismanaged expectations, unfulfilled needs and promise, and needs and promise ignored. I will focus on the last issue, multi-media technology, and the conference theme of importing 'real world' information into education in ways that traditional media and methods cannot -- information that is rich, ambiguous, messy, difficult to measure or manage, but crucial.

My paper will address the specific, ill defined but now widely touted need for more attention to ethics and values in higher education. I provide a framework for understanding some parts of that vast and complex need. Ethics and values education are not areas noted for exploiting either computer technology or 'real world' information, but they are areas where learning and inquiry can be improved thereby. I will provide some concrete illustration, with a videotape presentation of one multi-media learning environment for ethics. Among the messiest of 'information' to convey is the experience of valuation itself. Two of the videodisc applications briefly described below under Project THEORIA will be available for demonstration.

The application of multi-media technology to ethics and values education will raise more questions than it answers; but that's as it should be, since a sufficient benefit of the technology is to prove "a major stimulus for eliciting work and thought about teaching methods and how human beings learn" (Derek Bok, "Looking into Education's High-Tech Future," *EDUCOM Bulletin*, Fall 1985 -- a version of his 1985 annual report to the Harvard Board of Overseers, reprinted from *Harvard Magazine*, May/June 1985).

Some Observations & Provocations

Least Questions of Evaluation Evade Judgments about Value.

Five decades of research suggest that that there are no learning benefits to be gained from employing different media in instruction, regardless of their obviously attractive features or advertised superiority The best current evidence is that media are mere vehicles that deliver instruction but do not influence student achievement any more than a truck that delivers our groceries causes changes in nutrition. [Richard Clark]

Like 99.99% of what passes for competent let alone venturesome practice in education, the development and deployment of new technologies in education must largely proceed on the basis of good judgment rather than rigorous (let alone conclusive) evaluation. Demonstrable gains for the great costs involved are reasonable to demand, but these come only after considerable risk and investment. The forms of demonstration are many, but few will pass muster with the evaluation research industry. Derek Bok's seminal paper of 1985 (cited above) on technology in higher education is a good overview of the types of value judgment we cannot evade by insisting on the rigorous evaluative studies which few can afford. Evaluation research is not going to obviate the risks and challenges confronting the principal inventors of educational innovation: pioneering educators who have neither time nor resources for conducting formal evaluation projects.

The evaluation researcher's view (as distinct from the innovative practitioner's view) is represented by Richard Clark's seminal article "Reconsidering Research on Learning from Media" (*Review of Educational Research*, 53, 1983). Clark's most notorious conclusion was delivered by the truck metaphor cited above.

Suppose we accept Clark's metaphor, hardly apt for learner-centered models of educational process. By analogy, we might then look for technological vehicles for delivering various goods where no other vehicles in fact are available, where the questions are not whether it's the delivery vehicle that influences 'nutrition' but whether the goods are delivered at all and to what ends.

Our concern is presumably with media that afford learning experiences and information of sorts not available by traditional means. How demonstrable are the gains from new information or media remains to be seen. But if we defer to instrumentalist evaluation paradigms like Clark's, we will never learn. Technological innovation in education is not just about means and instrumentalities for pedestrian instructional goals in tractable subject matters, it is not about quantifiable instructional efficacy alone; it is also about the ill-defined ends of education, open-ended learning processes and rich, ambiguous 'real world' information that is not easily measured or managed.

For example, visual media (eg., photos, film, video) are not only alternative vehicles when it comes to delivering essentially visual information; they are the only vehicles. The question is when and why one needs pictures rather than other forms of data. Instruction is one thing; inducing experience another. Instruction in ethics and value theory is one thing; learning by inquiry and self-directed discovery is another. The questions for educators are when and why certain information -- say, direct or simulated experience -- is needed. As we look critically at technology in higher education and its future, we need beware the instrumental mentalities of the evaluation gurus . . . ends, not means alone, are the matter for hard value judgments and there is no science for evaluating ends. This paper is about elusive ends and messy means.

Neglected Domains: Open-Ended Inquiry in the Arts and Humanities.

With all its powers, the computer cannot contribute much to the learning of open-ended subjects like moral philosophy, religion, historical interpretation, literary criticism, or social theory -- fields of knowledge that cannot be reduced to formal rules and procedures.
[Derek Bok]

This statement from Derek Bok's paper cited above is certainly true in its second claim. And the second claim may seem good reason for believing the first, if one's model is the computer as expert system and automated tutor, the computer as teacher. But if one takes seriously the model of the computer as navigational aid, data bank, simulation and experiential learning environment -- as persuasively described and positively assessed by Bok in the self-same paper -- then the first claim hardly follows. In fact, there are powerful heuristic-driven tutors, simulation and data-analysis environments to support and stimulate learning in many open-ended processes of decision, normative judgment, historical interpretation, literary (or art) criticism and social theory. And I will argue for an actual *need* for same in moral philosophy. Religion may be another matter.

Value and efficacy remain to be demonstrated. But there's no reason in principle to neglect such

areas in critical assessments and creative exploration of technology in higher education. The fact that the very idea seems anathema or folly in many quarters points to a failure of imagination about both means and ends that wisdom about either technology or education simply cannot afford.

Why Is Surgery Taught In *Theaters*, but Ethics Only in *Theory* ?

Non scholae, sed vitae discimus

[Not for the school, but for life do we learn -- Epistolae morales]

Science, engineering, law, medical and business education -- various forms of professional or profession-oriented education -- seem to recognize this piety and necessity, at least in their respective domains, more fully than those humanities like ethics, which, with equal piety, aim to educate for life.

Put another way, no one would think of *credentialing* scientists, engineers, surgeons or other artists without providing them some hands-on view or experience with the actual stuff and rude realities of 'real life' practice; but regarding moral affairs, the groves of academe are experientially barren, devoid of the stuff of moral experience, with meager data in minute quantity, problems faintly viewed at grand theoretical distances, and propositions analyzed to a practically impotent fare-thee-well.

The study of ethics is typically academic and speculative in the worst senses of those terms. In serious science education we expect students to handle apparatus and process data that is rich in both quantity and quality. In ethics we typically rely on intellectual apparatus and demand neither quantity nor quality in data; nor are we accustomed to introducing 'hard' or 'raw' data into our studies, being more comfortable with those abstract commodities of detached academic discourse -- propositions, reasons, definitions, concepts and denatured case studies.

Two hallmarks of engagement with reality, two commodities that pervade life and moral experience but that are rarely entertained in ethics classes are: sense perceptions and feelings. There are at least two sorts of reasons for this discrepancy between the insipid stuff purveyed in classrooms and the strong stuff encountered in life outside -- one good, one bad.

The good reasons are practical. For example: Classrooms accommodate discourse well, but not many varieties of experience; the processing of articulate thoughts, but not confounding feelings.

The bad reasons are theoretical. For example: Moral issues are not about 'objective' physical phenomena, are not decided by observation, let alone anything like 'scientific' experiment, so perceptual data are not material. Moral reasoning and judgment are possible and credible only so far as they are 'rational,' and this means that feelings or emotion must either be vigorously rejected or rigorously subordinated. The textbooks say that appeals to emotion are fallacious, so why have them intrude in the first place?

The theoretical canon that dominates practice in the teaching of ethics has a venerable history. Fortunately for human life, no one pays much heed to the theory except in classrooms. Unfortunately, abstract ethical theory still dominates in the classrooms.

The issue of the role of emotion in moral reasoning and decisionmaking will provide grist for many

academic mills for millenia; it has received increased attention in academic philosophy, as one of the emergent issues of the '80's. Every now and again an inordinately sensible philosopher will rescue the profession's reputation with deference to common sense and practical reality by, say, proposing "a model for the mutual interaction of thinking and feeling in ethical decisionmaking" (Sidney Callahan, "The Role of Emotion in Ethical Decisionmaking," Hastings Center Report June/July 1988).

Unfortunately, the exigencies of life will not await the deliverances of this or any other generation's braintrust. Fortunately, there are other ways to learn than by studying the deliverances of academic theory.

For example, we can learn something about the role of emotion in moral reasoning by observation, by looking at our own experience and practice more directly, given good reflectors or simulators. We may then be in a position to invent our own theories of moral reasoning, if it's theories we need, much as theories were meant to be invented, by touching base occasionally with the realities about which they are theories.

There are venerable vehicles like literature and history and newer media like film and television for making our experience and practice accessible. One of the oldest media is theater, a medium characterized as capable of inducing the paradoxical phenomenon of *detached engagement*, a staple topic in courses on Greek Tragedy and a powerful attitude for learning.

Unfortunately, the study of Greek Tragedy as well as literature and film is itself more detached than engaged, though the analogues are instructive. Fortunately, yet newer technology provides yet another opportunity for engagement as well as detachment: a visual medium that depicts and induces palpable experience, but a medium with which we can interact -- computer-based multi-media. It is only ironic that we are driven to yet greater lengths to come closer to that touchstone of learning, experience.

'Experiential learning' is a bit of rhetoric invented to draw attention to forms of learning rescued from imprisonment in the ivory tower. Like 'applied ethics,' the expression is as useful as it is redundant.

To end with the appeal to authority with which I began

A sure sign that experiential learning, the affective dimension of 'real world' decisionmaking and video media are all on 'the right track' is that business schools -- who know from 'real life' and whereby their clientele's bread is buttered -- have taken up the cause. Drexel University's School of Business introduced a curriculum that emphasizes affective awareness; see Vivian Rosenberg, "Affective Awareness as a Critical Thinking Skill," *Teaching Thinking & Problem Solving*, January/February 1986. The Business section of *INSIGHT* magazine, May 30, 1988 ran an item "Examination of Ethics by VCR" on Stanford University's School of Business Administration use of video case studies in the study of ethical dilemmas, with the following telling testimonial:

Video helps capture the emotional element involved in these [insider trading] issues and provides a richer, more realistic presentation . . . Until now, Stanford solely used written case studies to examine questions of ethics.

Video case studies are employed with good reason in business, business schools and business ethics training programs and, as Derek Bok illustrated in his 1985 paper, the development and use of interactive video simulation environments is burgeoning in law and medical schools. Must we in

the liberal arts *always* take our lead from the professional schools?

What Is *Multi-Media* ?

Multi-Media here refers to any interactive computer-based environment that dynamically links several media: text, graphics, animation, sound, full-color high-quality video (motion or still) . Computer-based multi-media environments combine the data-richness and motivational powers of film or television with the interactivity and navigational powers of the computer.

Hyper-media and **Inter-media** are also terms applied to computer-based environments that provide orderly, structured but non-sequential navigational links among a variety of media and data. The links are *hyper* in two dimensions: *vertical*, as in a multi-media computer-based encyclopedia, where one selects progressively 'deeper,' more detailed text and visual illustrations under a topic; and *horizontal*, where one leaps 'across' to any of many related topics, as one would from a *See also:* list in an encyclopedia. Hyper-media may have programmed links, or allow the user to navigate among perspicuously organized topics and resources building her own links.

Interactivity between the user and the environment (with varying degrees of *user control*) and **dynamic connectivity** among several media (on several levels) are features that typically distinguish computer-based multi-media environments from (1) *passively* viewed *linear* video programs on the one hand and (2) interactive computer environments limited to *monochrome text and graphics* on the other hand.

Interactive video and **laser optical media** are other terms for essentially the same concept. Many adopt **multi-media** (shorthand for '*computer-based* multi-media') as the most generic of these various terms: **laser optical** denotes a certain technology; **video** denotes only part of the spectrum of data; **hyper-media** may beg the question of how deeply layered, dynamic, or interactive the environment really is; and **Inter-Media** happens to denote Brown University's implementation of this generic notion.

Multi-media environments may be implemented on a wide variety of computer-driven video or laser-optical technologies and hardware configurations: videotape, videodisc, CD ROM (compact disc read-only-memory), CDI (compact disc interactive), DVI (digital video interactive); with a video player or a stack of players beside the computer or out on a network; with two (or more) screens (a CRT and color video monitor), or one color monitor (with text and graphics overlaying the video, with split screen, with co-lateral displays in juxtaposed, overlapping or stacked 'windows' on the screen, etc.). Unfortunately, these technologies and their markets are in inordinate flux.

CDEC's prototype multi-media applications have been developed on IBM XT-based systems but are in the process of being re-implemented in our own portable programming language, cT, for Macintosh- and Unix workstation-based systems. CDEC is working with MIT's Project Athena to adapt our applications to run in moveable, sizable windows on advanced-function workstations.

Why Multi-Media?

The limitations of a monochrome environment displaying only text and graphics (even with animation) are obvious: the more textual material provided, the less opportunity there is for

interactivity; there is a clear limitation on the type of data that can be effectively presented: subjects and problems conducive to quantitative, abstract or schematic treatment clearly benefit; more concrete subjects dependent on observational evidence or perceptual data are less conducive to effective computer-interactive treatment.

The **blessings** of audio-video media are equally obvious, *if mixed* , as the power of film and television testify. The 'downside' of films and television for educational purposes is that these media are at once passively restraining and often merely overwhelming: they offer no means to stop the action, process one's thoughts or reactions reflectively, control the course and content of the presentation accordingly, or have one's responses to the presentation directly challenged.

Computer-driven interactivity, in theory, obviates these disadvantages. Interactive multi-media promises to combine both the wide bandwidth (the ability to communicate on many levels with diverse audiences) and the motivational power of audio-video media with the potential for orderly, structured, reflective inquiry -- ultimately under the user's control, with access to all manner of data and tools -- provided by the computer.

The advantages of computer-based multi-media environments are easily conjured, if not as readily realized:

Imagine. . . three fantasy scenarios: You are reading a Shakespearean text in one 'window' on a large high-resolution color monitor. You are drafting an essay for (a) your Shakespeare course (b) your history of tragedy course or (c) your stage design course. You're (a) arguing a particular interpretation of scene ii, act iii of *Henry V* (b) contrasting ancient Greek and Shakespearean theories of tragedy or (c) trying to design novel staging for the aforementioned scene.

With a few clicks of your 'mouse' you open another window that gives you ready access to available articles on whichever of these topics, cross-indexed and organized in hyper-text format, so you can browse and study myriad secondary source material at will from your workstation.

With a few more clicks you: (a) open two other windows and call up Lawrence Olivier's version of scene ii, act iii from the 1948 film in one, and Roderick Panchoff's version of the same scene from the video of the recent 1993 off-broadway production; (b) open two other window's to contrast the performed *denouement* of *Richard III* with that of *Oedipus Rex* in the authentic BBC reconstructions of the 'original' performances; or (c) open another window to play scene ii, act iii of *Henry V* with a transparent color graphics overlay program that allows you to schematize the staging and action, which you save to a file for later inclusion as animated schematics in your essay.

In addition to footnotes and automated references in the electronic multi-media version of the 'essay' you send to your instructor, you include 'snapshot' sequences from the performances you use to argue your points.

For relief while working on your final draft, you plug your headset into an audio channel for a little stereophonic Vivaldi off the network's extensive collection. Or take a real break and call up *Casablanca* in a window from the film library's Bogart archives, painting mustaches on Ingrid Bergman with the graphics transparency package

This future is easy to conjure, but as difficult to implement as it is (willy nilly) inevitable. We need to begin to guide that inevitability to good effect.

Apart from the fun and games, and the intrinsic power of the media to *force* this future, there is one singular bottom-line argument for multi-media:

Most of the real world and real-world problems for which we aim to equip our students are not well captured in books, lectures, class discussion, or even current interactive computer environments. The latter, for example, cannot readily *simulate* the practical realities or *stimulate* the human sensibilities that motivate and confound political or ethical dilemmas.

Typical students lack one important commodity for learning: *life experience* – or enough of it. Typical academic settings lack adequate means to provide this commodity. In academic terms, the lack is one of sufficient *data* and *context* -- necessities in any line of serious inquiry -- *particularly in areas like ethics, the arts, or politics, where much of the essential data and context are perceptual, experiential, even emotional.*

Multi-media environments are useful for the rich data, texture, and context they allow us to import into experientially barren groves of academic study -- allied with interactive computer technology for the easy control, flexible exploration, and disciplined reflection it can induce.

No strategic vision of the evolution of educational technology can afford to ignore the promise and problems posed by developing multi-media technology (typically, interactive videodisc and CD-ROM technology, although these particular technologies are not definitive of the rapidly evolving state-of-the-art).

No strategic vision of educational computing can afford to ignore potential applications in the largely neglected domains of the humanities and the arts, those 'soft' areas of open-ended value-laden inquiry that seem to resist practical and rigorous methodologies delivered even by traditional means or media. Curricula and pedagogy in these domains have never been so evidently important or so arguably in need of improvement.

CDEC Strategy & Priorities for Multi-Media

The world has become impatient for the 'revolution' the computer was to bring about for education. Is the promise of multi-media just more premature techno-hype? How do we responsibly realize the promise of computer-based multi-media? Where do we begin, how do we proceed? What is our strategy?

Technology is often hyped as a solution to important problems, on the presumption that those problems are already well understood. Where the problems are educational, this presumption is too often defeasible.

This is ironic, in view of the hubris of the term *technology*, which, in its etymological roots, means *the theory or logic (logos) of our know-how (techne)*.

For example, 'intelligent' computer-based tutors are often built on the assumption that humans understand the process of intelligent tutoring themselves; in most important areas, or in all but microscopic domains, we do not understand what it is exactly that humans do when they tutor (or learn) successfully. The overweening presumption that we understand the problems we address with technology is a source of gratuitous disappointment and misguided effort.

Strategies answer to problems. We begin by trying to identify the problems we want to understand and address. We do *not* presume that we yet understand these problems. We *do* assume that we can come better to understand and solve them through the adaptation of computer technology.

That is, we adapt technology in order better to understand (as well as to solve) an array of important problems for education and society.

Our first priority in CDEC is to focus on the **arts & humanities**, the development of exploratory, experiential, data-rich, hands-on simulation environments for subject matters, skills, or problem domains that require experiential information that is rich in its appeal to our human sensibilities and, therefore:

- (1) pretty much neglected in the march of technology;
- (2) especially difficult (to design for) because the problems, methods, and operations we want to understand or teach are *essentially* ill-defined and contestable;
- (3) in need of 'live' data & rich context to support serious, hands-on inquiry or pro-active learning . . . and therefore
- (4) in need of good analogues, good complements to museum tours, field trips, hands-on lab, studio, clinical or 'real life' experience;
- (5) of wide social, cultural and public interest; and
- (6) exportable to public libraries, museums, schools, hospitals, and other settings outside the university accessible to the wider public.

Integration of the development of new educational technology and media with the agendas of both 'real world' institutions and the curriculum and intellectual life of the university is also a strategic priority for CDEC. Mechanisms for outreach, exchange and impact are two-fold:

As Vice Provost for **University Studies**, concerned with improving general education and core curricula across the university, I have recently emphasized a program called **Values in the Arts, Sciences, Society & Technology (VAST)**, which initiates new interdisciplinary ethics and values curricula which test and use CDEC's new media.

As Director of Carnegie Mellon's new (effective June, 1988) **Center for the Advancement of Applied Ethics (CAAE)**, I am developing a two-way channel between business, government and professional organizations in the 'real world' and curriculum development in the groves of academe. The CAAE offers external education programs to corporations, government and professional agencies and collaboratively develops new curricula with the university's professional schools and University Studies. Case materials developed collaboratively in our external education programs feed into university curriculum development, and vice versa. This two-way exchange with the real world will provide materials and resources for the development of multi-media environments well adapted to education for life in that world.

Project *THEORIA*: New Media for Values Education

The priority area of CDEC's multi-media work is a series of projects under the generic rubric **Project *THEORIA***, whose agenda is reflected in its acronym: **Testing Hypotheses in Ethics/Esthetics: Exploring the roles of Observation, Rationality, Imagination, & Affect**. The goal of Project *THEORIA* is to design compelling, interactive simulation environments for testing hypotheses and 'theories' of the arts and morals -- among the most difficult and disputed of human value domains. (See projects listed below for examples on art forgery, the right to die, abortion.)

Theoria (Greek for *theory*) is also an allusion, to the concept of *theory* rooted in concrete observation, to the etymological roots of both *theory* and *theater* in the ancient Greek verb *theorein*: *to see, to view, to behold*. Through exploitation of multi-media technology, we aim to provide a theater for ethical and esthetic theory, to bring the theory to ground in realistic settings that are rich in the complex data that any competent theory must first behold in order to explain.

In the 'Golden Age,' in the beginnings of the Western philosophical tradition in Greece, the vehicle for ethical theory *was* the theater: a spectacle, with universal elements of 'the human condition' reflected by chorus and convention in the concrete, compelling drama of Greek tragedy and comedy.

Theory in the arts and morals most naturally begins in what we see, imagine, or feel. *Skills* of moral reflection or reasoning, like the practical skills of the surgeon or the theoretic skills of the scientist, require an operating theater or laboratory for *practice*. We need good analogues of that theater or lab for the arts and morals: an experiential crucible for learning by seeing and doing.

Four projects are presently in various stages of concept, design or development for ultimate delivery on advanced workstations as well as microcomputers:

A Right to Die? The Case of Dax Cowart (a videodisc, first in a series)

Art or Forgery? The Case of Han Van Meegeren (a videodisc)

Birth or Abortion? The Human Face of a Dilemma (mixed media, with videodiscs)

Values Boggled: Ethics, Art & Money in the Work of J. S. G. Boggs (in concept)

These projects provide a mere sampler and only begin to illustrate the type and range of applications possible in the vast arena of human values inquiry.

A Right to Die? The Case of Dax Cowart

This prototype videodisc won a *Certificate of Merit* in the 1988 University of Nebraska Videodisc Award competition for its contribution to the state of the art.

Content: The videodisc presents the famous case of Dax Cowart -- a victim of severe burns, blindness and crippling injuries who persists under treatment to insist that he be allowed to die. Through interviews with Dax and other principals in the case (his doctors, lawyer, mother etc.), the user investigates basic ethical issues regarding quality of life, autonomy and competence, the obligations of medical professionals, etc. Throughout, the user must continually address the central dilemma: *whether* Dax should be granted his request to die - as well as the reasons *why* / *why not*.

Features: The videodisc will support eight or more hours of interactive exploration of the issues and case material, in two basic modes: 1. Access to video archives in which video segments are organized by both major issues and principals. 2. Socratically guided inquiry by which the user is led eventually to consider all the facts, issues and viewpoints. The program branches and questions the user in order to challenge her judgment and responses with contrary views and visuals. A NoteCard facility records the user's responses to questions or notes, organized under the relevant issue for output. The program uses these responses to direct the user to apt or challenging branches of inquiry and to query the consistency of her evolving views and judgments. When a final position is taken on whether to let Dax die, surprising consequences follow for either choice.

Need: Dax Cowart's request to die poses the kind of hard choice and hard case that makes or breaks our theories about what is right, best, or decent to do. Hard cases in ethics are born of rude realities, perplexing feelings & conflicted viewpoints. But those rude realities rarely invade the groves of academe & studied reflection is rarely afforded amidst the pressures of practical life. Our prototype videodisc aims to help bridge the gap between arid theory & harried practice, to stimulate & simulate crucial conditions of critical moral reasoning in ways that other media cannot.

Critical moral reasoning requires, *inter alia*: empathy, the vivid representation of the interests of others; practiced confrontation with hard facts, unforeseen consequences & strong feelings; an appeal, at once, to our senses, sensibilities & minds; with opportunity for challenge & reflection.

Ethical theory must be brought to grips with issues in 'live,' affecting contexts, rich in the complex, perplexing data that any theory must first behold in order to explain. Theory or wisdom in morals begins most naturally in 'real' experience, in what we see, imagine or feel. *Skill* in ethical analysis or moral judgment requires the equivalent of a laboratory, studio or theater -- like the scientist's, artist's or surgeon's -- for 'safe,' hands-on, experientially rich practice. For all these reasons, the study of ethics needs interactive video. And the world of interactive video technology needs a 'proof of concept' project, an *experimentum crucis* to show that it can serve the cause of education in ethics and address salient, pressing social issues.

Audience: A crucial test is by our colleagues in law, medicine and health services; our disc is intended to be useful in settings of professional education and practice, where our prototype is presently being reviewed and site tested. Prime targets are postsecondary teachers & students, with whom it was used this semester. And because of the wide 'bandwidth' of the medium, its power to communicate on several levels with diverse audiences, we also see the disc as a resource for public schools & libraries.

Art or Forgery? The Case of Han Van Meegeren

This videodisc does for aesthetics and art history studies what the other projects attempt to do for education in applied ethics: to put interactive computer tools and compelling, realistic data for intensive hands-on inquiry into the hands of users (be they undergraduates in aesthetics or art history courses, high school art teachers or students, or members of the museum-going public).

The videodisc raises compelling, generic issues in aesthetics, art history or 'art appreciation' in the context of a dramatic 'real life' art-world scandal that occurred at the end of WWII. It is designed for university, school, or public deployment (eg., in libraries and museums), by teachers in class settings (for interactive presentation and discussion) or by individuals for self-study.

The videodisc program is set up as a 'detective story,' putting the user in the role of an investigative reporter who must sift through and weigh the historical, scholarly, visual and forensic evidence to determine whether a given painting (sold to Nazi Hermann Goering during WWII by a third-rate Dutch painter, Han Van Meegeren) is in fact an original Vermeer (as claimed by the art experts) or a forgery (as claimed by Van Meegeren, in order to escape a life sentence as a Nazi collaborator). Aesthetic issues are also raised about the status of a good forgery as 'art' and what makes any work a work of *art*. The program is designed to exercise the user in the critical, observational and analytic skills required of any informed observer of visual art. The videodisc makes resources from museums and libraries around the world readily accessible.

The goals of the videodisc are to provide (1) easy access to a rich store of information and art work in one convenient place to provoke (2) close attention to details and features of art works and (3) analysis of the evidence pertaining to issues of attribution and aesthetic value to enhance the observational and analytic skills needed to appreciate visual art, to generate and test hypotheses under duress from contradictory data.

Issues of attribution are heuristic vehicles for basic lessons in the interdependence of fact and value judgments, the nature of human value judgment and evidentiary standards, and the weighing and balancing of protean 'evidence' that can at once compel and mislead in the conflict of alternative explanations.

The videodisc has been deployed with 90 students in our Aesthetics course and will be showcased at several major conferences in 1988-89: in art education, philosophy, the American Association of Museums, the College Art Association and *LaserActive '88*, an annual national conference on new developments in laser optical media. For detail information see:

Covey, Preston K., Lisa Leizman and Kate Maloy. *Art or Forgery? The Case of Han Van Meegeren - A Videodisc*. CDEC Report # 88-07.

Covey, Preston K., Lisa Leizman and Nicholas Spies. *Art or Forgery? The Case of Han Van Meegeren*. A videotape demonstrating the prototype videodisc. CDEC videotape # 88-12.

Leizman, Lisa and Kate Maloy. *Vermeer or Van Meegeren? An Interactive Videodisc for Aesthetics*. American Association of Museums Sourcebook: Museums as Bridges to Community Renewal. Washington, DC: American Association of Museums, 1988. CDEC Report # 88-14.

Birth or Abortion? The Human Face of a Dilemma

This project has just begun in the prototype design, 'proof of concept' phase with the production of sample video case materials in linear and interactive formats, for purposes of seeking funding. The project will develop original educational material in several media for public, secondary and postsecondary audiences to address a moral and social problem of the first order: the conflict and controversies surrounding the issue of abortion. The project and its case materials are derived from well advanced interview research and a book in preparation by Kate Maloy and Margaret Patterson, *Birth or Abortion? Private Struggles in a Political World*.

The approach is to develop a painstakingly balanced set of case materials and multi-media resources for exploring the complex dimensions, moral perplexities and human realities of the problems of human choice. There is no attempt to argue any one moral, ethical, political or sociological viewpoint. This intensive case study approach is modelled on that of J. Anthony Lucas' well received and highly acclaimed study of the school desegregation controversy in Boston, *Common Ground: A Turbulent Decade in the Lives of Three American Families* -- viewing the realities and complexities of the dilemmas through the eyes of participants and professionals on all sides of the larger social problem.

The educational goals of the project are basic lessons in moral inquiry and imagination, in the spirit of the following observations on cognate projects, but with the added impact afforded by the visual, interactive medium -- lessons that nobody knows yet how to measure in any medium:

The three families at the center of my story were not selected as statistical averages or norms. On the contrary, I was drawn to them by a special intensity, an engagement with life, which made them stand out from their social contexts. At first, I thought I read clear moral imperatives in the geometry of their intersecting lives, but the more time I spent with them, the harder it became to assign easy labels of guilt or virtue. The realities of urban America, when seen through the lives of actual city dwellers, proved far more complicated than I imagined. [J. Anthony Lucas]

I try to . . . bring the reader up close, so close that his empathy puts him in the shoes of the characters. You hope when he closes the book his own character is influenced. [William Carlos Williams]

Through a mix of media, the project aspires to bring its audience -- traditional and non-traditional learners alike -- 'up close' to human realities, moral perplexities and conflicted sensibilities that often confound our best efforts to chart and lead decent human lives. All the project's components, the interactive media in particular, aim to induce one incontestably crucial condition of competent moral reflection: the vivid representation of the interests of others, the appreciation of moral, emotional and practical straits that -- but for fickle fate or feckless imagination -- afflict us all, our common human ground for negotiating conflict in community.

If the project finds funding, its products will ultimately include: the book of case studies (of professionals as well as women and men who have struggled with different problems, decisions and their consequences), a public broadcast television production, a set of educational videotapes, videodisc archives of case and background material, interactive programs highlighting ethical and gender issues, and accompanying study guides. For details, see Preston K. Covey, *Birth or Abortion? The Human Face of a Dilemma - A Multi-Media Project*. CDEC Report # 88-01.

Values Boggled: Ethics, Art & Money in the Work of J.S.G. Boggs

This interactive videodisc concept was provoked by the work and trial of the conceptual artist J.S.G. Boggs, recently reported in a fascinating serial article by Lawrence Weschler in the *New Yorker* ("Values I & II," January 18 and 25, 1988 -- excerpted from *Kapinsky's Karma & Boggs's Bills*, San Francisco: North Point Press, 1988).

Boggs does very exacting life-size replicas of paper currency (one side only, with documentation on the other side, so that there is no intention of counterfeiture), which he then tries to "spend," with no attempt to defraud or pass off his product as actual currency. Therein hang many tales . . .

Boggs, whose artwork consists in the transactional inquiries that result from his attempts to "spend" his artifacts, was tried (unsuccessfully) by the Bank of England for his precise reproductions of pound notes. Therein hangs another tale

Boggs' work and story raise countless intriguing questions about money, "art" and "value," around which a multi-media, multi-dimensional curriculum in values inquiry could be built.

In Boggs' view, his art form does not consist of the artful replication of currency but rather in the whole (series of) transactions that his attempt to "spend" his product generates: his project is really a transactional inquiry into fundamental questions of art, value and ethics. The artifactual elements of his art works include all the paraphernalia (from change and receipts to his actual "purchases") that result from and evidence his transactions; these are what Boggs collectors collect. But his practice stands as a paradigm of conceptual art and challenges the conceptual limits between art and life. Boggs also exemplifies the crucial comedic dimension of serious values inquiry.

This case raises very basic, compelling issues in ethics, aesthetics, value theory, economics, social history and law: deep questions about the nature of value, the nature and value of art and money, the cultural norms that govern their relationships, and the ethos of the artist in society. The visual interests and transactional drama of this case lends itself naturally to interactive video treatment.

The case provides a nexus of issues for interdisciplinary studies. There exists a rich social history of artists' reproductions of currency, for various and nefarious purposes, a thematic thread for social historical focus. There are interesting philosophic questions (dramatized in his trial and subsequent hassles) for the law in Boggs' case. While his case is not strictly one of either fraud or forgery, it would make a natural progression from such cases into more fundamental issues regarding what is "art" or "value" (that begin dramatically when people either agree or refuse to accept his artwork in lieu of money). One interesting subtext in the case is the history and nature of "money," monetary or fungible value, and the monetary system -- a natural segway into the philosophy of economics as well as the economics of the art world.

This project is just entering the design treatment and grant proposal phase. Boggs and Lawrence Weschler, a philosopher and professional writer for the *New Yorker*, have expressed interest in collaborating with CDEC on the eventual project, which will, in effect, become an extension of Boggs' artistic and educational work in a new medium.